

MACDONALD COLLEGE JOURNAL



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Farm · Home · School



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An Eye to the Future

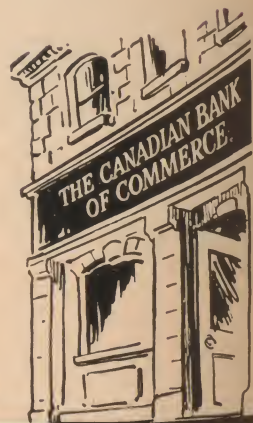
Long term planning helps you to raise more than the average for your area. This planning for the future should especially be applied to the five basic factors of farming. They are: Land, Livestock, Labour, Capital and Size of Farm or Farm Business.

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Action Follows Thought

The seasons change slowly; the movement of nature, from the gradual awakening in the spring, when the first subtle change is the awareness of movement; the flowers and shrubs hidden in the warm recesses of rocks and crevices push through to a new life. The universe seems to awaken; there is a feeling of life; a pulsating tremor as though nature were feeling her strength. As the days lengthen and the sun and rain warm the earth there is the gradual unfolding of summer when the full glory of growing things becomes apparent; not to the eyes alone, but through smell and sound also are our senses excited and we are made keenly aware of the beauty around us. The summit is reached, and there is a slowing down through the autumnal glory of colour to the bleakness of a winter landscape when the world around us seems to be dead, impossible of resurrection.

We live with this scene; year after year it passes before us; we are so close to it that its beauty often escapes us. We should think of it, however, for we can draw a parallel from it in the history of our world. Growth, maturity and decay—all these factors are with us; a great civilization arises, attains maturity and then decays. This is the pattern of the past. Is it also to be our fate, or have we learned how to overcome the obstacles that led to the downfall of all past civilizations?

At the base of all civilization is the small community. A hardy, moral people save and accumulate resources, they expand and become urbanized. The best minds of all the surrounding areas are drawn inward, there is a flowering of wealth and culture, a meeting of many minds. Gradually the outlying communities are left without the leadership they need if they are to remain alive and vital. The deep roots which people had in society have withered both within and without the urban area. Slowly the old barriers drop, there is a loosening of the moral code; mass means of propaganda are used to influence the people by those who wish to control them; people no longer think for themselves but allow others to do that thinking for them.

When we cease thinking for ourselves; when we allow radio, press and pulpit to do our thinking for

us we are becoming intellectually lazy and leaving the way clear for the demagogue. Life may still be democratic in form, but the rule is mob rule, appeals to the feelings accompanied by a constant outpouring of slogans and phrases designed to fix the mind on certain objectives.

If we are to face the problems which confront us, we must learn to think as individuals, and also in small groups, for our future may well depend upon the answers we give. As individuals we often feel frustrated and by-passed, as though we cannot do anything ourselves, but here we are wrong, our thoughts and ideas expressed around the dinner table and at small community meetings are caught up by others, they are discussed and thrown back and forth until the group emerges with definite thoughts and feelings.

The idea that emerges may be far different from our original idea, but that doesn't matter; what does matter, however, is the fact that a group has taken an idea and through the democratic process of discussion has reached a conclusion that is acceptable to the majority.

If small communities are to give leadership in this time of change, they must do so from an inner conviction that change is desirable and necessary, this feeling must grow outwards, from the communities so that we get a fusion of ideas, this is the only way in which small communities can remain healthy, any group which cuts itself off from the flow of ideas loses its flexibility, becomes rigid and straight, it is only through exchange and fusion of ideas, and action based upon those ideas that the small communities will remain alive and vital, and able to play their part in the moulding of national opinion.

Our Cover Picture

The Nativity scene on our cover this month appears on a screen made last year by students of the School for Teachers. Looking at the screen from a distance, with lighting behind it, you would think it a beautiful piece of stained glass work; but in actual fact, the only materials used were pieces of coloured paper, unless you count the wooden frame on which the paper is stretched. The figures are very nearly life size.

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The Building And Filling Of Trench Silos

by Wm. Kalbfleisch

Mr. Kalbfleisch is an agricultural engineer at the Central Experimental Farm. He has had considerable experience in the construction and use of silos, and in this article he gives us some information along these lines.

HORIZONTAL silos, a modified form of trench silos, are adaptable to modern agricultural practices and the use of various hay harvesting machines. The original trench silo located almost entirely below the ground surface is adaptable to hand operations but not the use of labour saving equipment.

Silos of the horizontal type are at least fifty percent above ground surface to make filling and unloading operations easier. Two forms of these silos are in use depending on whether the land is practically level or whether a slope or hill is available for silo construction. Where the land is almost level the silo is dug 2 feet but not more than 3 feet into the ground. Soil obtained from the excavation can be used to build up the sides of the silo above the ground surface, or soil and lumber can be used for this purpose. Where the land has a reasonable slope, the outlet or lower end of the silo should be level with the ground surface while the bottom of the silo at the upper end should not be more than 4 feet deep. By such a design wagons can be pulled directly through the silo. This shallow depth at the upper end of a silo is possible on land with a considerable slope as the bottom of the silo does not have to be level.

Good soil drainage for silos is important but does not limit their use as much as might be expected. On higher land, shallow horizontal silos may not require any drainage while tile drainage may be used with shallow silos where the soil does not absorb water quickly. In any location where drainage is not perfect, however, the bottom 12 inches of the silos should be filled with dry hay or straw. This material will absorb moisture from the green silage above and develop into usable feeding material.

Walls of a silo above and below the ground surface may be formed of earth, or earth and dimensioned lumber, trimmed slabs, concrete, and various other materials. Earth walls provide the cheapest silo but where extensive wall trimming is needed in light soils, the silo continuously increases in size. Concrete walls increase the cost of a silo but establishes a permanent unit providing the concrete is placed on a suitable footing and reinforced with steel to prevent the walls from cracking. Walls made from wood and banked with earth are sub-



The silo in the foreground is four feet above and three feet below the ground surface. At the left is a temporary silo with a diameter of forty feet and a capacity of four hundred tons.

ject to rot but their life can be extended by using cedar or other wood treated with a preservative.

Wall slopes of two feet in ten are required in silo construction, this helps packing operations and compensates for shrinkage as the silage settles. A depth of 7 feet and preferably 8 feet is desirable in a horizontal silo at the time of filling to secure a settled depth of about 6 feet. 12 feet is the minimum width required at the bottom for the tractor wheels to pack the entire surface of the silage. Wider silos may be used, however, when large herds of cattle are being fed. With this design, depth and wall slope the top of a silo is approximately 15 feet wide yet narrow enough when a roof covering is required. The capacity, or the length of a silo can be determined by considering the density of silage as 40 pounds per cubic foot at the time of filling. On this basis a silo with a length of 50 feet, an average width of 14 feet and a depth of 7 feet has a capacity of 98 tons ($50 \times 14 \times 7 \times 40$ divided by 2000).

Provisions for end slopes is an important feature of horizontal silos so that tractors, wagons, trucks or buck-rates can move directly through the silo. The slope of the soil at each end of a silo 3 feet deep should be at least 10 feet long. It is not necessary, however, that these slopes extend entirely beyond the ends of a silo. A silo 50 feet long may have a flat base 40 feet long with 10 foot slopes at each end that extend only 5 feet beyond each end. The end slopes formed by the silage above the ground are just as important and should be at least 15 feet long. After the silo is filled and packed these ends can be trimmed off and fed as green material to live-

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stock. In locating a silo it is, therefore, essential that a clear space of 40 feet be allowed at the ends for entering the silo with wagons or motor trucks.

Crop Factors in Filling Silos

All chopped materials may be stored in either vertical or horizontal silos, while hay crop materials can be placed in horizontal silos with or without chopping. This feature of horizontal silos makes possible the use of silage on a greater number of farms. Machines such as buck-rakes or loaders can be used in harvesting long or uncut materials. Special consideration should be given however, to the use of unchopped materials to obtain as satisfactory results as with cut materials and to keep spoilage at a minimum.

Normally, uncut crops do not pack as easily as those that are chopped and, therefore, the crop should be harvested in a condition suitable for storage. When a crop is allowed to wilt slightly the stems are less ridged and can be packed more easily in the silo. But excessive wilting of the crop tends to make the plants tough and more resilient.

The desirable moisture content is 70 per cent. A good test, to find out whether this moisture content has been achieved is to place a small quantity of the chopped material in the palm of the hand. If moisture can be squeezed out, the material is too wet; if it squeezes down and then falls apart when the pressure is released, it is too dry. If the material squeezes into a firm patty that retains its compressed shape, it is approximately at the correct temperature. In general, grass crops require little or no wilting to compress properly while crops containing a fair amount of legumes may be wilted for one or two hours on a warm day.

Grass crops or crops with a reasonable percentage of grasses are more readily ensiled than pure legume crops. A crop of grass or a mixed crop with 50 per cent grasses is easier to cut in the field, easier to unload off a wagon, and easier to spread in a silo than legume crops which tend to tangle and form into a rope or bunches on a wagon.

Corn harvesters, hay harvesters, corn binders, green crop hay loaders and buck-rakes may be used as the principal field machines along with wagons or motor trucks when filling horizontal silos. The use of these machines in the field is the same for all types of silage operations, and thus silo filling operations are the only items requiring special consideration when using horizontal silos.

When chopped material is hauled to the silo in dump trucks, the trucks are driven directly through the silo and the silage is distributed in the same manner as unloading gravel. Experienced truck drivers can distribute the crop quite evenly in the silo but hand levelling is required if the load is dumped in bunches. When a layer of material 6 to 12 inches deep has been placed in the silo a partly loaded truck is run back and forth through the silo to pack down the silage.

Where wagons and tractors are used for hauling chopped or unchopped materials into the silo the crop



This silo is twenty feet wide and ninety feet long with eight foot side walls. At the far end, near the barn the bottom of the silo is level with the ground surface while the near end is three feet in the ground.

is unloaded by rolling it off with rope slings. The slings are laid along the bottom of the wagon box and up the front end of the box to the top of the load. A heavy rope is attached to a dead man or anchor located behind the wagon and then it is laid over the top of the load and attached to the sling at the front end of the wagon. As the wagon is moved ahead the silage is rolled over and off the rear end of the wagon. Special hand-made slings are frequently made for this operation that resemble a fish net made of rope with a 10 inch mesh. When chopped material is unloaded by this method some hand spreading is required but the amount of labour involved is not excessive. Hand operation can be reduced by using a light bulldozer blade on the front of the tractor for packing the crop in the silo. When long or unchopped material is used a considerable amount of hand labour is involved unless the crop consists of grasses and is cut when rather short. Sometimes it is more satisfactory to fork off part of the load and spread it at the same time.

Where the hauling distance is relatively short and buck-rakes are used for bringing in the crop, the silage material can be deposited directly in the silo from the buck-rake. When the teeth of the buck-rake can be dropped and the rear of the buck-rake lifted the crop can be easily unloaded. Periodically the rake is removed from the tractor so that the tractor can be manoeuvred more readily in packing the silo.

Chopped straw, chopped hay, sawdust, shavings or earth and similar materials are used in covering a silo. It is desirable that the materials used to cover a soil be damp to provide a better seal and that the covering be at least 6 inches thick.

Packing of the silage material during filling operations is important, but it is more important to continue packing operations after the silo is filled. By packing the silage at 5 to 7 day intervals, following filling operations, top spoilage is almost entirely eliminated because the packing is being continued as the silage settles down in the silo. With a rubber tired tractor each packing operation only requires about 30 minutes.



FROM HERDS OF BUFFALO TO OCEANS OF WHEAT

In providing the necessities of life to the Indians, the buffalo was without rival. The spacious prairie region provided a grazing paradise for such large herds that their numbers, at times, blackened the plain.

The acquisition of the Hudson's Bay Companies' territories by the Dominion and the Homestead Act of 1870, the completion of the Canadian Pacific Railway in 1885, the introduction of Red Fife wheat, and the development of farming methods suitable for the prairie region, are mileposts in the settlement of the Canadian West.

The hunting grounds of the Indian have been transformed into a highly mechanized agricultural region that ranks as one of the great grain-growing areas of the world.

IMPERIAL OIL CONTRIBUTES TO WESTERN GROWTH

In 1883, Imperial Oil established the first western bulk plant at Winnipeg. As settlement progressed, supply depots mushroomed alongside newly laid railroad lines.

Increasing mechanization and the rapid expansion of western agriculture during and following World War I marked the beginning of a period of western exploration and expansion in the oil industry. Wheat growing is now almost completely mechanized and the time required to produce a bushel of wheat has been reduced by more than one half.

Today, Western Canada has a surplus of oil. These developments provide a new source of strength and security for the Canadian economy.



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Farm Division

Will The New Synthetics Replace Wool?

by D. W. Carr

The high price and short supply of wool has given the synthetics a chance to take over some of the market formerly reserved for wool. Synthetics are cheap to manufacture, and cost less than wool. They will be difficult competitors to face.

THE high price and short supply of wool have turned the attention of both textile manufacturers and consumers toward synthetic fabrics for clothing. To what extent can the newer synthetic fibres meet the price and qualities of wool?

Among the chief fibres used for making clothing,—wool, cotton, rayon and silk—wool ranks second in value and third in quantity of output. Rayon surpassed wool in world production for the first time in 1941. Wool, cotton and silk each have particular qualities which are suited to special uses. Like wool, cotton and silk are natural fibres the qualities of which have varied very little over time, compared to synthetic fibres. As a result, during the past hundred and fifty years, each of these three natural fibres has found its special use and held it. Cotton and silk compete only to a limited extent with wool—because of inferior qualities in cotton and the high price of silk.

The situation has been much different in the case of the artificial fibres. Since 1889, when production of rayon was first attempted on a commercial basis by the French scientist, Chardonnet, the quality of these man-made fibres has been steadily changing. In some cases they have been virtually tailored to fit a particular use. The extremely strong rayon fibres developed for use in tire cord were so successful that rayon has taken over 40 per cent of the tire cord market from cotton. The length and fineness of these machine-made fibres can be controlled to a much greater degree than they can in the natural fibres of wool, cotton and silk. Textile manufacturing costs are considerably lower for synthetics. Most of the materials from which artificial fibres are made, cotton ginning wastes, wood pulp, etc., are very low in cost. Raw materials for the true synthetics—coke, oil, water and air—may be even less expensive. Methods of producing them have been improved by research and their prices have remained low or fallen while the prices of the natural fibres have risen. World production of artificial fibres has increased greatly since World War II.

The United States is the largest market for rayon and the three natural fibres. The following table shows the average prices of these four fibres in the United States for 1930, 1939 and 1950.



Have the new synthetics got wool on the run?

Textile Fibre Prices

(Dollars per pound)

	1930	1939	1950
Wool (clean)	0.75	0.83	1.98
Cotton	0.089	0.093	0.362
Silk	3.40	2.50	3.60
Rayon (viscose) ...	0.60	0.25	0.362

The large increase in the prices of wool and cotton has not been matched in rayon. The fall in price of rayon illustrates why it has been able to take over some of the fields held by cotton. From 1945, silk prices fell from a peak of over \$7.00 per pound to their present level as a result of the entry of nylon fibre into the clothing field, particularly in women's hosiery. Nylon prices are not shown in the table but they too have fallen substantially since this fibre came on the market.

The chief superior qualities of wool are its ability to insulate the body from both cold and heat, its superior drape and softness to the touch, its moisture absorbing qualities, and its felting quality. Other qualities in which it had been superior have now been matched by one fibre or another. Strength, resistance to wear, and elasticity are all found in equal or superior degree in one or more of the artificial fibres. These last three characteristics are particularly desirable in many industrial uses and manufacturers of artificial fibres have found a big market for their product in industry. With an enlarging market in industrial uses they have not yet tried to get into the clothing market to any great extent. It can be expected that improvements in synthetics may soon put them in a position where they will offer stronger competition to wool. Some of the more recently developed synthetic fibres such as nylon, orlon, dacron, and dynel, promise to offer it in the near future.

Rayon has been used a good deal in place of cotton

for tire cord and for men's and women's light-weight summer clothing. But rayon has not replaced wool to any extent in those clothing fabrics where wool has its greatest advantage, such as heavier cloth for suits and overcoats and in knitting yarns.

Development of Synthetics

Nylon was the first true synthetic. The raw materials for its production are coal (coke), air and water. Developed for the du Pont Company by a research group led by Dr. W. H. Carothers, it was first introduced in 1938. It is a synthetic with a chemical structure similar to the protein structure of silk, hair and wool. It is very strong, either wet or dry. It is resistant to stains, corrosion from chemicals, bacteria and mildew. The fibres are very uniform and resistant to wear. It dyes well, shrinkage is controllable and pleats can be set permanently in it. It has largely taken over the women's hosiery field and is being used in increasing quantities in mixtures with wool for men's hosiery, in mixtures with rayon for summer suitings and dresses, and in mixtures with wool for medium suitings. The price is about the same as for wool.

Orlon, developed by du Pont during World War II, is as strong as nylon, is stretch resistant and resistant to molds and other bacteria. It offers a combination of warmth, crease resistance, lightness and durability previously unavailable in synthetic fabrics. It seems likely that it will find a wider use in winter, fall and spring clothing. It is priced comparably with wool.

Dynel is a synthetic fibre formerly called vinyon. Its resistance to chemicals, fire, and water make it suitable for many industrial uses but some work clothing and socks have been made from it. The price of dynel is \$1.25 per pound, about two-thirds that of wool.

Dacron, called Terylene by Imperial Chemical Industries (the du Pont counterpart in Great Britain where it was developed), is one of the newest of the fibres that are likely to compete with wool. It is resistant to damage from insects and other organisms, and is the equal if not the superior of nylon and orlon in strength and durability. Wrinkle resistance is so good that pleats are reported to remain after months of wear. Its price is slightly below that of wool.

There are many other man-made fibres which can be substituted for wool to a limited extent. Among these are the fibres produced from a protein base from such materials as casein, soybeans, corn, etc. However, the four true synthetic fibres described above seem more likely than any others to move into the traditional stronghold of wool in clothing fabrics. With an industry as progressive as the synthetic fibre industry, it would be rash to predict how far these fibres are likely to cut into the market for wool. In the United States the production of synthetics other than rayon has increased from five million pounds in 1940 to 145 million in 1950. Larger

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expenditures for research have already paid dividends in improved quality and lower costs of production. As shown above, there are indications that even in their present state of development, at least some of the synthetics can offer wool not only price competition but competition in such properties as drape, warmth, and resilience. In the past these properties have given wool an almost exclusive preference in some uses. In strength, resistance to wear and creasability, some of the true synthetics are superior to wool.

In the long run, high relative prices for wool may be a support to the expansion of the synthetic fibres into the clothing field. Much of the demand for wool, especially in apparel fabrics, rests on the esteem in which it is held, only a part of which is related to the advantages of wool in fabric. Once the consumer is forced by high wool prices to substitute clothing made from these other fibres he may become so accustomed to their use that a large part of the shift will become permanent. There would still be, of course, an opportunity for wool in the field of high quality fashion clothing catering to the higher income groups. Wool has unique advantages in this field and is likely to retain them. But the existing trend in the apparel field is toward mass production of medium quality, low-priced fabrics. The rapid shift toward urban life leads to different apparel requirements from those of even a few decades ago. Controlled temperatures in office buildings and home and enclosed and heated transportation vehicles have diminished the necessity of providing oneself with a supply of heavy woollen clothing. These are some of the reasons for the trend toward finer yarns and lighter fabrics. Manufacturers are having to adjust to this trend and these changes are likely to require still greater use of synthetics to give strength and durability to the lighter-weight fabrics.

Current high levels of employment and income tend to increase the relative costs of sheep raising. At the same time, they give the synthetic industries an opportunity to expand by plowing back profits into new plants. These are being expanded today on the basis of the demand for the new fibres for industrial uses and military requirements but they will be able to turn their facilities to supplying the apparel field when these other needs become more adequately filled. Synthetics are already attractive to fabric manufacturers because of their greater uniformity and their greater adaptability to standardized machine techniques. Both give considerable savings in labour costs.

For the Canadian wool grower the implications of these developments are not likely to be very severe. For some years now he has been finding it increasingly difficult to compete with Australian, New Zealand, South African and South American wools in terms of costs of production and quality of wools produced. The Canadian farmer

has found sheep production at some disadvantage relative to other kinds of agricultural production in Canada. From 1945 to 1950 his production has fallen from 19.6 million pounds of wool to 9.5 million, and the 1951 shorn wool production is more than 400,000 pounds below 1950. Only 10 to 15 per cent of the volume of wool consumed by Canadian textile mills in each of the years 1946 to 1950 was produced in Canada.

The Significance of Farm Forum

Farm Forum 1951-52 is well under way, and another season of Forum discussion and Forum action is on the move. What do the Forums stand for? What are they trying to accomplish? We believe that these ideas expressed in the Rural Co-operator are well worth a little thought.

Lots of people are members of a forum, attend the meetings regularly, co-operate in putting over community projects, but still fail to understand the significance of what they are doing.

The forum idea, the organized discussion group idea, is becoming one of the most vital aspects of modern democracy. It may even prove to be the salvation of democracy.

Today the democracy we cherish is threatened. It is threatened by a growing centralization of political power on the one hand, and by the frightening shadow of colossal economic monopolies on the other.

Only an intelligent, well-informed, active and well-organized community can build a democratic system that will last.

In rural Canada we don't know of any means more effective than Farm Forum in creating this kind of community.

Farm Forum is truly Canadian democracy in action.

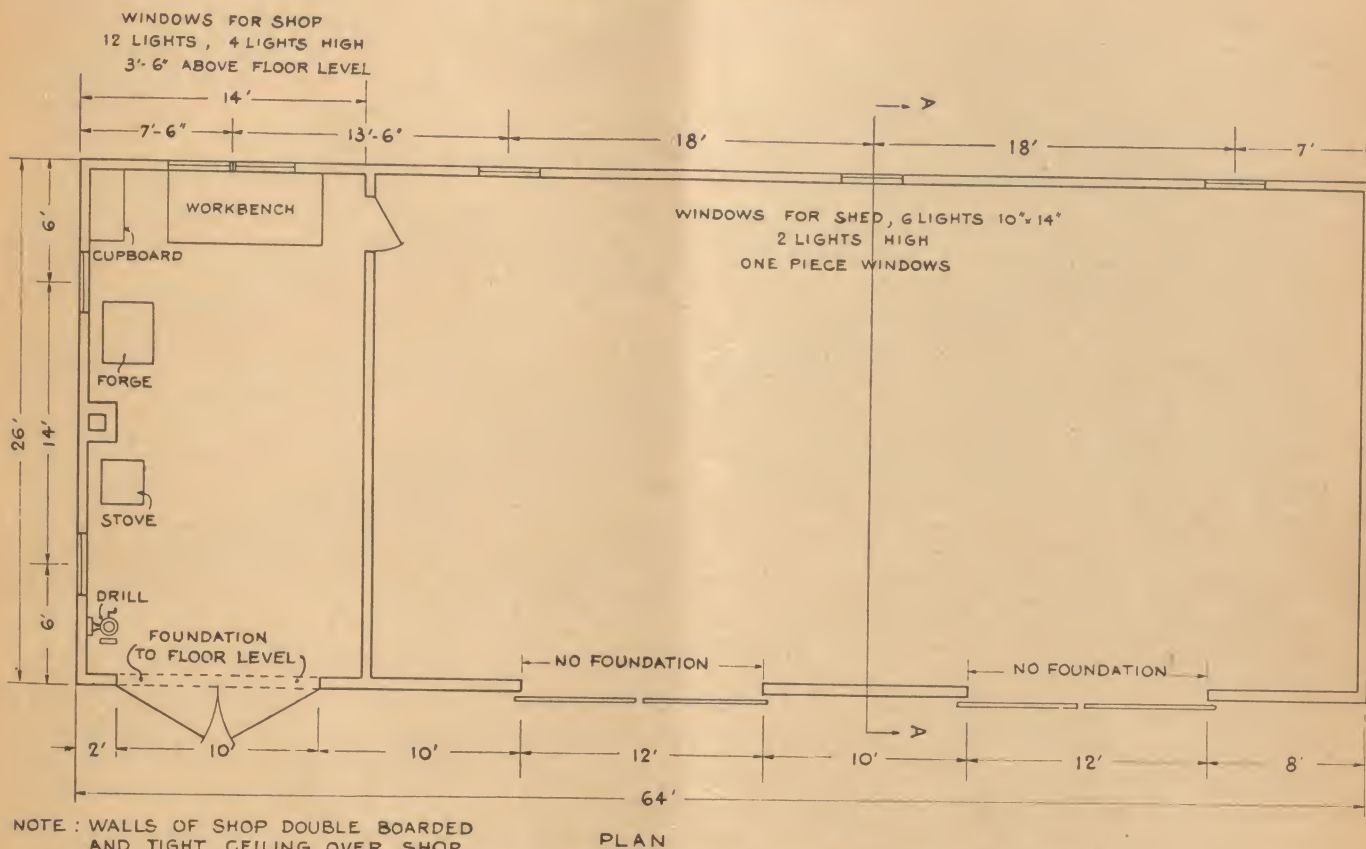
Cash income from dairying does not include returns from veal calves or sales of dairy cattle for slaughter. If these were included it is probable that since 1940, dairy income would be second only to income from all livestock. The census shows that in 1941, nearly 80 per cent of the 733 thousands farms in Canada kept cows for milk.

Canadian milk production increased steadily from 10.6 billion pounds in 1920 to 17.5 billion pounds in 1942. Between 1942 and 1947 the rate levelled off and since 1945 a slight decline in production has been apparent. Central Canada is the chief producing area and accounts for about 62 per cent of production. The Prairie Provinces follow with 28 per cent while the Maritime Provinces and British Columbia together produce about 10 per cent of the total milk supply.

High condition of the dairy cow is desirable prior to calving if the cow is to produce her best during the lactation period.

Overhauling Farm Machinery

by A. C. Malloch



This workshop has three great advantages, it's warm, it's well fitted out and it is close to the implement shed. This makes easier handling of the implements.

Prof. Malloch tells us to keep our machines under cover, and to carry out needed repairs during the winter months. It pays off in longer life and dollars saved.

A WELL-CONCEIVED and faithfully carried out programme for maintaining farm equipment during the winter months can save many hours of costly delays when field work gets under way next Spring. The wise operator will have made notes during the past season to remind him of parts to be repaired or replaced on the various implements. Orders for these parts should be placed well in advance of the time they will be required as delivery delays are sometimes unavoidable.

One aspect of the maintenance programme which has not been sufficiently stressed is that dealing with the shop area. A better repair job can be done if the shop is efficiently laid out; if the tools are arranged in their proper places, and returned to these places after use, and if the working area is kept clear of scrap, dirt and useless "junk". It is important, however, to keep a scrap pile of odd bits of steel, castings, etc., since they can frequently be used to make temporary repairs, thus

saving valuable time in the busy season. This scrap pile should be located in some corner where it will not interfere with free movement about the shop or implement shed.

Plans for farm shops to suit a wide range of requirements can be secured from agricultural representatives or colleges. A convenient arrangement is to build the shop as an addition to the machinery shed with inter-connecting doors, so that machines can be moved back and forth without necessitating snow removal. Heating equipment should also be installed, as much better work can be done when the body is warm.

The number of tools required depends not only upon the ability and skill of the operator, but also, upon his general policy regarding the amount of work he is willing to do on the farm, as against sending the machines to a professional mechanic. To-day's trend is definitely in the direction of doing more and more of the work in the farm shop. Many farmers have become skilful in the use of machine tools, such as lathes, drills and grinders, as well as oxyacetylene and arc welding equipment. Facility in the use of these tools has frequently developed the farmers ability to design and construct machines and

equipment to carry out special jobs.

The basic hand tools which should be included in every farm shop are: claw and machinists' hammers, cross-cut, rip and hack saws, a complete set of good double ended spanners, several sizes of adjustable wrenches, pipe wrenches, small and large screw drivers, at least one of which should have an insulated handle, cold chisels, wood chisels, jack plane, auger and set of wood bits, hand or breast drill and set of twist drills for metal work, large and small wrecking bars, and grinding equipment to suit individual requirements. A blacksmith's post drill considerably increases the size of holes which can be drilled in steel without the use of electric power, and it is relatively inexpensive.

Where power is available a one-half or three-quarter horse-power motor very quickly pays for itself in time and labour saving. The same motor can be used on grinder, drill, saw, water-pump and many other power tools, if a little thought and ingenuity is used in the layout.

Overhauling Procedure

As to the procedure for overhauling the machines, the best advice that can be given is to follow the manufacturer's instructions. Nobody knows as much about a particular machine as the man who designed and built it, and if the instruction book does not seem to cover a point in question a letter to the local agent will usually produce the required information.

The essential condition common to overhauling any equipment is to have it clean, therefore, a good supply of Varsol or other relatively non-inflammable grease solvent is necessary. Do not use gasoline or even kerosene for this purpose; they are not only dangerous but more expensive.

Particular care should be taken in cleaning bearings, to ensure that all caked grease and grit are completely removed; only when this is done can the parts be examined for wear. Clean mud and dirt from all bolts and nuts, checking for tightness, presence of lock washers, cotter pins, etc. Belts, chains and sprockets should receive similar attention and idlers should be adjusted to give the recommended tension.

Complete lubrication instructions are also given by the manufacturers who specify the particular kind and grade of oil or grease for each part of the machine. This phase of the maintenance and overhaul programme cannot be stressed too often since the right lubrication in the right place can prevent wear or even breakage, with consequent saving of time and money. Special greases are available for preventing rusting and pitting of bright parts such as plough shares and mouldboards, mower knives, coulters and discs, etc. These should be thoroughly coated as soon as their season's work is finished, even though the overhaul of the machines may not be done until later in the winter. It is much easier to prevent the rust than remove it.

No discussion of farm implement overhaul would be complete without mentioning the ever increasing use of the "hard facing" alloys which have been developed in recent years. They may be divided into two general classes; those designed to resist abrasion or wear, which are hard and may be brittle, and those designed to resist impact, which are hard but not brittle. The former are used on such parts as plough shares, coulters, discs, etc., where the main cause of wear is the constant sliding along in gritty soil. The latter are used to rebuild such parts as hammers in hammer mills, cutter knives, etc. The materials are available in the form of powder which is deposited by means of the carbon arc, and in rods for application by either arc or oxyacetylene welding.

Hard facing deposits should be applied to the under side of the plough shares and cultivator shovels, and to the inside of discs, in order to make the parts self-sharpening. The softer original metal quickly wears away in contact with the soil, leaving the hard surfacing alloy exposed. Several successive applications can frequently be made to one part thus prolonging its life. Experiments have indicated that a total life of seven times the normal service can be obtained by re-tipping plow shares three times at a total cost of three times the original purchase price.

It may be added that while there is a greater saving in re-tipping or hard surfacing steel plow shares than cast iron, due to the higher first cost of the former, there may be times of short supply of materials when it is good economy to repair the cast shares in this manner also. A different technique is employed but the results are equally satisfactory.

A final word on safety devices. Unlike factories, farmers have no compulsory safety regulations, and if these did exist they would be almost impossible to enforce. It rests with each individual farmer, therefore, to ensure that where safety devices are provided, they should always be in place and properly fastened. Most accidents are caused by the failure of some individual to observe simple and fundamental rules and precautions. Safe practices become increasingly important as mechanization advances.

Increased milk production in Canada is due to increases both in the number of cows and the production per cow. Though production to-day is some 40 per cent greater than in 1920, consumption of fluid milk has increased greatly-particularly in the last decade, and the concentrated milk industry has developed into an important phase of dairy processing. Thus, while production of milk has kept pace with population growth, there has been a gradual decline in the quantity of milk available for export.

An Experiment In Grass

by H. A. Steppler

Birdsfoot trefoil is a comparatively new legume in Quebec, and its performance is arousing interest in many quarters. Macdonald College has carried out tests with different varieties of the legume, and in this article Prof. Steppler reports on some of the results obtained.

FORAGE varieties which are long lived, palatable and useful as both hay or pasture are certain to arouse the interest of farmers. Such a variety has recently made its appearance in Quebec, namely birdsfoot trefoil. There has been an increasing demand for information over the past few years and seed is being offered for sale in limited quantities by some seedsmen.

Birdsfoot trefoil is not a new legume being first recorded in New York City in 1875 and at Cornell University in 1885. It is not a native plant but is thought to have been introduced from Europe possibly with ballast in ships, or as straw packing materials. Not until the 1930's when workers at Cornell became interested did it receive much attention. At that time fields were located in New York State, particularly Albany county, in which birdsfoot trefoil had been growing wild for over thirty years. Some of these fields are still in production with the birdsfoot flourishing. Since then considerable work has been done, mainly at Cornell by Dr. H. A. Macdonald, a former Canadian and a graduate of Macdonald College. Birdsfoot trefoil has now been grown in most of the States and over much of Canada.

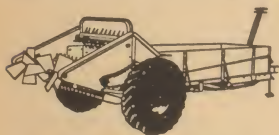
There is a record of birdsfoot trefoil having been grown here at Macdonald College in 1912. However, nothing came of that trial and it was not until 1947 that extensive tests were initiated at Macdonald to learn more about birdsfoot.



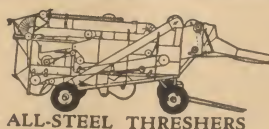
Type of growth after cutting on three varieties: (1) Bunker, (3) Upright European, (2) Empire. Note the thick spreading effect of the Empire variety.

The above ground growth resembles alfalfa although much finer in both leaf and stem. In addition the stems are not as upright in growth as alfalfa although again this varies with different types. The leaf looks much like an alfalfa leaf, being composed of five leaflets, three arranged as with alfalfa and the other two at the base of the leaf stalk. The stems will reach a height of about two feet.

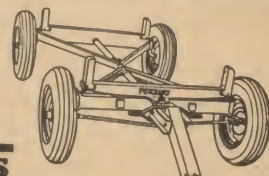
The flowers are a bright yellow and are borne in groups of five to seven at the end of a branch. The plants have a habit of blooming throughout the summer and in any field it is possible to find ripe seeds, flowers in full bloom and young buds. The seed pods are long and contain up to twenty seeds per pod. When ripe the pod twists open violently and flings the seed in all directions. The pods are arranged at right angles to the long flower stem and resemble the spread toes of a bird's foot—hence the name. The seeds are brown in colour and slightly larger than alsike clover seed.



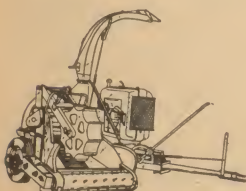
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As previously stated, birdsfoot trefoil is a legume. That means that it has the power, characteristic of all legumes, to take nitrogen from the air and "fix" it in the soil. As with other legumes this is carried out by means of bacteria of which there are many types each for a particular group of legumes. Birdsfoot trefoil needs its own specific type which must be mixed with the trefoil seed at the time of seeding. The correct type of bacteria may be purchased commercially at the same time as the seed for a very nominal cost.

The root of birdsfoot trefoil is very similar to that of alfalfa, i.e. a tap root. It is not quite as deep as alfalfa but has been known to penetrate to 6.5 feet. The root has many more side branches than alfalfa. Experience in the Northeastern States indicates that it will withstand more heaving than alfalfa. The birdsfoot trefoil grown here does not spread by means of underground creeping roots; one species important in Oregon, namely big trefoil, does spread by means of creeping root stalks.



A single plant of the recommended Empire variety of Birdsfoot Trefoil at fourteen weeks of age. The roots have been detached.

Types and Varieties

There are two main types of birdsfoot trefoil which are of interest to us, namely, broad leafed as characterized by Empire and narrow leafed as the Bunker variety; both of these varieties have originated in New York State. Of the varieties tested to date at Macdonald, Empire has shown itself to be the best adapted to our conditions. The European types are in general more upright in growth habit than Empire but have not proven to be sufficiently winterhardy under our conditions.

The question now arises where should it be grown and how should it be managed on the farm. This legume

is adapted to a wide range of soil conditions. It will tolerate a lower pH, that is, a more acid soil, than alfalfa. It will grow under conditions of poor drainage and will withstand more drought than Ladino clover. In addition it will do reasonably well on soil low in fertility although it does respond to fertilizer applications.

There is, however, one other characteristic of birdsfoot trefoil which is a shortcoming. It is notoriously slow to establish. In the year of seeding birdsfoot trefoil seedlings may be so small as to go unnoticed. Generally two years must be allowed before the trefoil can be considered as established. This does limit its use in a short term rotation. However, it may be valuable when longer term, e.g. 4 or 5 year seedings are made.

The clue to its use is the long-lived characteristic. It will be of importance on soils not well suited to alfalfa and where a long term rotation is desired. Although it can be used as either hay or pasture, nevertheless it will be most useful in seeded long term pastures, that is, one to remain for four or five years. Under continuous grazing it tends to grow close to the ground with many of the branches lying directly on the ground. If allowed a short rest period during midsummer, it will produce sufficient seeds to reseed itself—our experiments at Macdonald College have repeatedly demonstrated this fact. Limited farm seedings in Quebec and extensive trials in the United States have shown it to be equal in palatability to alfalfa, but much better suited to grazing than the latter. In addition there is less tendency to bloat, although care should be exercised when grazing lush growth.

Because of its slow starting it is not considered advisable to seed vigorous legumes in association with the birdsfoot trefoil—they may crowd it. However, if the nurse crop and each succeeding crop is to be grazed, then this may not be too serious and red clover or Ladino may be planted in association. As previously mentioned the seeds are smaller than red clover, seeding at the rate of four to six pounds is considered satisfactory.

Finally—a few words of warning—do not be discouraged in the the year of seeding—if possible have some qualified person tell you whether the stand is satisfactory. Secondly, experiments here at Macdonald College have shown that the European strains are not as winterhardy as the recommended New York strain, namely Empire. Since European seed is generally cheaper, do not be misled by that fact. Thirdly be sure to inoculate the seed with the proper bacteria. Lastly, while birdsfoot trefoil will grow on poorer soils, it does give a response to fertilizer application, so fertilize it freely.

Information Please!

Something new has been added! This section should make interesting reading, for it is given over to the problems of our readers. Problems sent in by Farm Forum and other groups will be dealt with here.

THE first problem concerns the constitution of the National Farm Radio Forum.

For those not familiar with the set-up of the Farm Forum, Jim Davidson, Quebec Secretary, National Farm Radio Forum, wrote the following introductory remarks.

"At the annual meeting of the National Radio Farm Forum held at Brandon, Manitoba, during July, 1950, the practices and procedures of Farm Forum were written into a constitution. Before this date Farm Forum had followed certain practices without a constitution.

Farm Forum as a national or a provincial organization does not act as a special interest group bringing pressure to bear upon federal or provincial governments. Instead the Farm Forum organization makes representation to appropriate action bodies such as the Canadian Federation of Agriculture or the provincial farm organizations.

The special case of the Quebec Farm Forum has always been recognized by the National body. They know that our Farm Forums are the only English-speaking farm organization in Quebec. The C.F.A. allows us to name a director to their National Board. Thus on federal agricultural policy we have a direct line to the C.F.A. Ours is the only Farm Forum given this privilege. In provincial matters we are recognized by the French-speaking Catholic Farmers Union (U.C.C.) as expressing the opinions of the English-speaking farmers. Our opinions are given when requested, and accepted by them. It will be realized that we have to work very closely with the French-speaking farmers on provincial matters, for if we went to the government alone we would be regarded as a minority.

The question quoted below is an important one, for it touches directly upon the new constitution. Floyd Griesbach, National Secretary, replies to the question and gives the reasons why Farm Forum on both a national and provincial level does not take *direct* action on controversial issues."

Question. This group feels that it is detrimental to National Farm Radio Forum if the new constitution is put into effect. If the organization does not take direct action on controversial issues it is a lost cause to continue.

Answer. Farm Forum is an airing of rural opinion and it is to safeguard this very thing that the clause on controversial questions in the new constitution was drawn up. This clause says: "National Farm Radio Forum shall encourage freedom of discussion, and expression of opinion on the part of the local Farm Forums."

I should like to make it clear that the constitution does not limit the action of local Forum groups. It says Farm Forum "shall not take sides *nationally* or *provincially* on any controversial question." This means that local groups are free to take action if they so desire. At the provincial and national levels, however, Farm Forum must confine itself to its educational function. National Farm Radio Forum is a vehicle for dispensing information to the Forums on the one hand and publicizing their opinions on the other.

The main purpose of Farm Forum is to serve as a clearing of opinions and this means all shades of opinion. If Farm Forum became a pressure group it would tend to discourage the opinions of the farmers who did not agree with the pressure program.

Although it may appear to be a weakness of National Farm Radio Forum that it cannot take action on the provincial or national levels, this is actually its strength. Farm Forum gives people a chance to become informed on their problems, and to let all points of view be expressed. Conclusions that are reached are all the more firmly based if formed after a thorough examination of all the facts. Farm Forum is the educational arm of the Federation of Agriculture. The Federation itself is the farmers' action body. I think you will agree that both education and action are needed—that is, both Farm Forum and the Federation.

"JOE BEAVER"

By Ed Nofziger



Forest Service, U. S. Department of Agriculture

"No, I'm not being wasteful—I figure what we don't eat, we'll float downstream to the pulp mill!"

Trial by Neighbors

That's what Britain's land policy really is. If a farmer persistently refuses to make reasonably good use of his land his neighbors on the district agricultural committee may recommend that he be replaced by someone who will farm it better.

NO DOUBT you have heard about Britain's County Agricultural Committees; and you may have wondered about their purpose and their method of operation. Each of the 49 counties in Britain has its own committee. All of them work together to administer the nation's agricultural policy by making use of the services of practical men living and working on farms.

The plan was conceived during the war, when as much food as possible had to be grown quickly. The National Farmers' Union, the big organization of farmers, was strongly in favor of it. So, when the Minister of Agriculture had to frame a peacetime policy for the land, he found a ready-made organization at hand in the county agricultural committees guided by the informed opinion of practical farmers.

Each committee consists of 12 members, who give their time as an act of public service; none of them are paid. The Minister of Agriculture appoints five of them, including the chairman; the remaining seven are selected by the Minister from panels of names put up by farmers, farm workers, and land owners — three from the farmers, two from the farm workers and two from the land owners. They meet, as a rule, about once a week.

The primary purpose of these committees is to act as the nation's stewards — responsible to Parliament — for the good management of their farmland. They see to it that their county grows the acreage of grain and potatoes needed to ensure that the nation's farming program is fulfilled. They also take steps to raise the standards of livestock husbandry by encouraging better management.

An English county covers, as a rule, something between 500,000 and 700,000 acres, which is too large an area for one committee, so district committees are also set up — one for every thousand farms or so. The district committees are staffed by good working farmers, who have to go around and persuade their neighbors to grow crops and manage their livestock in a way that will produce the food which the nation badly needs.

For example, if a farmer or a land owner is badly misusing his land, they point out to him where he is falling short, and indicate the kind of thing he should do



Scene on an English farm near Ashborough.

to improve his farming. If this advice is ignored and no improvement takes place, that farmer or land owner will be put under supervision. This simply means that he is no longer advised, but told what he must do.

If, after every effort has been made to induce him to improve his ways, he still shows no signs of improvement, the county committee can advise the Minister of Agriculture to give him notice to make room for someone who will do better with the land. But before he is put off he can appeal to an independent tribunal of which the chairman is a barrister or some other person with proper legal training. The other two members are a land agent and someone representing the farming side.

Reason for Drastic Action

This may sound pretty drastic — and it is. During the war, some 3,000 farmers were turned off their land because the committees despaired of ever making good farmers of them. The argument for this system is that, with less than an acre of land for every person in Britain, the nation just can't afford to have its farm ill-used. However, those who decide to dispossess farmers are usually sympathetic neighbors, who do it only as a last resort.

Altogether, about 5,000 farmers have been doing this job without a penny pay. When they first began it, during the war, the committees were often not too well received; farmers the world over are pretty independent. But the members of committees were local men who knew local conditions. They, too, were farming for a living, so they could always say: "Well, if you don't believe me, why not come and have a look at my place next Sunday?" In this way they quickly won the confidence of most of their less progressive neighbors.



DEPARTMENT OF AGRICULTURE

*Activities, Plans and Policies of the Quebec
Department of Agriculture*

What The Barley Contest Has Accomplished

In 1946 the Canadian Brewers' Association organized a country-wide competition in an effort to increase the amount of good malting barley available to breweries, and to improve its malting qualities. The contest was divided into two sections; a Western section, open to farmers in the prairie provinces, and an Eastern section open to Quebec and Ontario. In each section, regional, provincial and inter-provincial sub-sections were set up.

In the West, competitors were required to produce at least a carload of barley (1800 bushels) to compete. In the East, each contestant must have at least five acres in barley. To get into the finals of the regional contests, each competitor must clean at least forty bushels, from which a representative sample is taken for testing and judging.

In Quebec, the committee in charge of the contest insisted that the crop be inspected in the field while it was growing. This requirement served two purposes. It made it possible to eliminate a number of growers early in the season, when it was evident that their crop would never make the grade in the final tests. And it gave the inspectors an opportunity to pass on valuable advice to the grower about purity of seed, choice of variety, rate of seeding, disease control and so forth.

The need to clean forty bushels of barley for the contest made farmers take particular pains with their cleaning operations, for with forty bushels to be cleaned, machinery will have to be in perfect condition to do the

job properly. This amount of grain cannot be gone over by hand, as is often done when a small lot of grain is being prepared for exhibition as seed grain. A bushel of grain, laboriously picked over kernel by kernel until a practically perfect lot is obtained, is no true sample of the whole crop.

In the regional contests, the entries are judged on a scale which gives a total of 750 possible points, as follows:

	Points
Summer inspection	100
Trueness to variety	100
Freedom from other seeds	100
Germination	100
Weight per 1000 kernels	50
Uniformity of size	100
General appearance	200

The correctness of the judging of the first and the two last items depends on the competence of the judges. The other points are scored according to established standards as shown in the table.

Testing for impurities, germination, and weight is done in the Provincial Plant Products laboratory. Of particular importance in this judging is the ability of the sample to germinate, for this is grain which is to be used for malting. Freedom from seeds of other varieties, or of weeds, is also an important quality, for contamination of the barley by other seeds reduces its value to the brewer. No sample

% Germination	Points	Impurities per pound	Points	Weight of 1000 kernels in grams	Points
100	100	1/2	99	35 to 40	100
99	99			41 or 34	98
98	98	1	98	42 or 33	96
97	96	2	96	43 or 32	94
96	94	3	93	44 or 31	92
95	92	4	90	45 or 30	90
94	80	5	85		
93	86	6	80		
92	83	7	75		
91	80	8	70		
90	76	9	65		
89	72	10	60		
88	68				
87	64				
86	60				
85	55				
84	50				
83	45				
82	40				
81	35				
80	30				

For each impurity over 10, the sample is penalized 5 points. Impurity means oats, wheat, buckwheat, or any other seed mixed in with the sample.

5 points are deducted for each gram above or below the weights shown above.

of grain can be graded No. 1 Seed if it contains one seed of a primary weed, or more than one seed of a secondary weed, or more than twenty-five weed seeds of all kinds per pound. And since the barley contest rules state that only grain that can grade No. 1 Seed can win any prize, it can readily be seen that any sample of barley that gets a prize in this contest is really good seed grain.

As for the weight, this is due to the fact that the brewers want medium-sized uniform kernels that will all germinate at the same rate; and this is also desirable in seed grain, for which purpose much of the prize barley will be sold.

Great Improvement in Quality and Yields

As a result of the contests which have been in progress for the past six years, there has been an amazing improvement in barley quality and yields by those farmers who entered the contests. If only the same rate of improvement could be reached by every farmer for every crop, there is no telling what levels our farm production might reach.

In the first year of the contest, average yield per acre, on the farms entered in the contest, was 29 bushels. With each succeeding year this figured climbed steadily until in 1950 it reached the figure of 51½ bushels per acre. In the same period, the quality of the crop advanced too. Whereas in 1946 almost 47% was rejected as below

minimum quality, in 1950, 70% graded No. 1.

There is room for more good quality barley on our livestock farms, if these yields can be obtained. The average of 51 bushels to the acre is about double the yield for the province as a whole. And similar yields can be obtained by any farmer, provided he uses the best varieties, sees that his seed is clean and of high germinating power, and if he grows the crop properly.

One of the main factors in this remarkable success in barley growing on some of our farms is the use of registered seed. To extend the use of this better seed, the rules of the contest were changed in 1949 to allow the judges to award an extra 15 points, at the time of the summer inspection, to every farmer who had planted registered seed. Of the 187 farmers whose production was judged in the finals of the regional contests that year, 98 had used this seed; that is, about 52% of them. In the present crop year, at least 95% of the competitors sowed either registered seed or seed no more than two or three generations removed from a registered crop.

Barley may well become a profitable cash crop in this province. In Montreal alone, the breweries buy something like two million bushels of barley every year. The most that Quebec farmers have been able to offer them, in the very best year, was sixty thousand bushels. There is a market here which is worth going after.

Granby Co-operative Has A Good Year

With a membership of 1,126, and doing a business amounting to almost four and a half million dollars, the agricultural co-operative of Granby is the largest of its kind in the country. Founded in 1938 by a group of optimistic farmers, encouraged by agronomes and advisors of the Department of Agriculture, the co-op has grown steadily with the years until now it threatens to surpass, in volume of business, most of the industrial establishments with which Granby is so well supplied.

Its chief activity is the transformation of milk, which it secures from some 1,100 of its members living in 40 different parishes, into milk powder, casein, and sweetened condensed milk. But it has a number of other departments as well. It operates a grain-grinding plant, a hatchery; handles insecticides and fungicides, farm equipment, and will soon return to the handling of smaller items of hardware and of medicine. These last two items had been dropped, but are being replaced on the co-op's shelves at the demand of the members. Another line, which, however, has not been successful in overcoming consumer resistance to a new product, is the "Dari-Spred" which was put on the market late in the summer as a bread spread. Nutritious, and made entirely from dairy products, it was hoped that this material would become popular among those who found the price of butter out of their reach. But despite a thorough adver-

tising campaign, and a well-planned series of outlets for the product throughout the province, lack of sales volume has caused manufacture to cease.

Figures released to the members at the annual meeting held last month reveal that during the year this thriving co-operative bought

262	cars of feed grain
702	tons of chemical fertilizer
176,578	bushels of seed grain
2,108	head of livestock
129,008	dozen eggs
63,212,050	pounds of milk
825,671	pounds of cream

While some of these purchases were made outside, of materials for resale to the members, the milk, cream and eggs were for the most part bought from the members themselves, for transformation into products for sale. Among these products manufactured and sold were

1,138,351	pounds butter
446,741	pounds cheese
2,713,287	pounds condensed milk
5,440	pounds evaporated milk
4,612,960	pounds milk powder
1,069,401	pounds skim milk powder
99,400	pounds spray whey powder

The average price paid throughout the year to members for their milk was \$3.009, for cream \$20.60 and for eggs, 47¢.

It is interesting to note that the co-operative has found a valuable market for its products in Venezuela, and is hopeful of opening other markets in the British West Indies. Sales agents have recently been appointed there and it is hoped that a considerable volume of business will soon be built up.

The co-operative used to maintain a sales office in Montreal, but these offices have now been moved to Granby, into quarters recently built to accommodate them. There has been a lot of new construction at the plant, which is given as one of the reasons why the patronage dividends available for distribution at the close of the business year amounted to only \$20,127.40. However, transfers to reserves and to depreciation have been heavy, and the members seemed satisfied that their interests were being properly looked after by the executive.

Omer Deslauriers was re-elected president; R. P. Saborin is the secretary and J. M. Bonin is the general manager. Directors elected were Messrs. Omer Ostiguy, l'Ange Gardien, R. Desmarais, Eastman, A. Lamarche, I. Martin and H. Lussier, all of Granby, G. Viau, St. Alphonse, G. Morrisette, and S. Lussier, Ste. Cécile, R. Larose, St. Césaire, L. Noiseux, St. Jean Baptiste, A. Archambault, Abbotsford, Omer Tétreault, St. Pie, N. Bernier, St. Valérien and A. Ouimet, Valcourt.



The plant of the agricultural co-operative at Granby.

New Livestock Certificates Proposed

A suggested new type of registration certificate, one which will be the same for all breeds, is one of the items that will be discussed at all breed association meetings during the new year.

The proposal for a uniform certificate was made at a meeting of delegates of about twenty-five breeders' associations and officials of the Federal Department of Agriculture last month. If the new arrangement is approved

by the individual associations at their annual meetings, it is expected that it will result in a simpler and faster service by the Canadian National Live Stock Records, but the associations themselves will have a larger share of the responsibilities which have piled up with time, and which have been taken on by the Records Office.

The new proposals can be summarized as follows:

1. Registration certificates will carry only enough information to clearly establish identity and ancestry.
2. A standard registration certificate will be used for all breeds.
3. Placing of special deposits to the credit of an association by the Records Office will be discontinued.
4. Any duties and services which can be carried out by association secretaries will be transferred to them by the Records Office.

In short, the Records Office would cease to act as banker and lawyer for associations, and its responsibilities would be limited to issuing short pedigrees. Longer pedigrees would be provided by the association, the fee to be charged for such a service being in accordance with the amount of work involved in each case. Department and Record officials would continue to be at the disposal of associations and members for advice on any problem related to the new responsibilities assumed by the individual associations.

Two Distinguished Visitors

The Department of Agriculture was host, during November, to two distinguished British visitors: Mr. Tom Allsop, senior animal husbandry fieldman for England, and Mr. George Smith, who has the same job for Scotland. Messrs Pierre Labrecque and J. J. Gautreau took them around to some of our larger farms in the Quebec district and in the Eastern Townships to give them an idea of how we carry on livestock farming in this part of the world. They also visited the experimental station at Ste. Anne de la Pocatière, where they saw the flock of North Country Cheviots and some of the market lambs that have resulted from crosses with these and our own breeds of sheep.

They were impressed with the high quality of our purebred livestock, and noted particularly the influence of some of our imported animals on our herd quality. They expressed the hope that we in Canada will keep up our policy of going to Great Britain for high quality breeding stock.

About 17 per cent of the total cash income of Canadian farmers comes from the sale of dairy products. It is only exceeded by that derived from livestock and from wheat and is about twice the income from farm sales of poultry and eggs and nearly four times that of fruit and vegetables.

Quebec At Ottawa Conference

The Dominion-Provincial conferences on agriculture, which were organized to co-ordinate production during the war years, have been continued into the post-war period. On December 4, 5 and 6, representatives of federal and provincial governments, and of various agricultural associations, met at Ottawa to discuss and appraise the agricultural situation of 1951 and the outlook for 1952. The Quebec delegation, lead by the Deputy Minister of Agriculture, Mr. Rene Trepanier, included J. E. Dube, head of the Extension Services, Henri Dubord of the Farm Economics Service, Dr. George Maheux, Director of Information and Research and L. Descoteaux, Chief of the Farm Economics Service.

Minister of Agriculture Gardiner, opening the proceedings, stressed the need for more food to feed the world's undernourished populations. He stated that Canadian farmers can increase their production, but this is only one step toward a solution of the problem. "Somebody has got to show us how we can get the food where it is needed, and show that we can get a reasonable return for it," he said.

The delegates agreed that the forces which had helped to create a high world demand for goods during 1951 would continue to make their presence felt during 1952.

The farm labour situation remains tight, and most of the delegates placed the blame for this on the inability of agriculture to compete with industry in the way of hours of work, hospitalization and unemployment benefits, and high wage rates. The present immigration policy of the Federal government was considered to be only a partial answer to the problem. Many of the new Canadians who settle on farms leave them at the first opportunity to move to the cities. Commenting upon this situation, Mr. Abel Marion, representing the U.C.C., deplored this movement away from agriculture, but though suggesting that something should be done about it, he could put forward no concrete proposals toward solving the problem.

Speaking with particular reference to the situation in Quebec, Mr. Trepanier said that for the second consecutive year Quebec's production of oats, barley and mixed grains had set a record, though the market quality was inferior when compared with that of the previous year. The three major problems the Quebec Department of Agriculture was dealing with were soil conservation, live-stock feeding and the distribution of farm products. The government had spent twenty million dollars over the last five years on drainage alone, and was willing to spend five million more during the coming year, if the Federal government will contribute on a fifty-fifty basis.

Quebec farmers are going over more and more to grassland farming. This movement is of the utmost importance, because it helps to combat the labour shortage



The Quebec delegation at the Ottawa conference. H. Dubord, L. Descoteaux, Rene Trepanier, George Maheux and Ernest Dube.

by reducing the amount of work on the farm. It aids good conservation practice and provides for greater efficiency in land use. It does, however, mean that greater reliance is placed on the steady flow of feed grains from the prairies to Quebec farms. This was one point on which all the Eastern delegates agreed; namely, the necessity for the continuation of the Federal government's grain subsidization policy. If grain is to be shipped from the prairies to Eastern feeders, they must receive this grain at a price which will enable them to sell their finished product at competitive prices on the market.

These annual conferences were vitally important during the war years, as a means of taking stock of the needs for and the availability of various products of Canada's farms, so that production could be planned well in advance of each planting season. They are still valuable, if only for the opportunity they provide for farm leaders from all over Canada to meet one another and learn something of the problems that face farmers and farm administrators from other parts of the country. It is far easier to understand the other fellow's point of view when you can talk to him face to face across a conference table, or in a hotel room.

Everyone knows about, has heard about and has felt the pinch of the high cost of everything, notwithstanding the high cost of construction. The buildings on the average farm were built before this period of elevated cost and undoubtedly insured during that period. But should fire or windstorm destroy those buildings, they couldn't be replaced at the value then placed on them. A check on the policies covering the farm buildings to see if the insurance matches the cost is a recommended procedure.

Buy Chicks Locally

Mr. Ubald Pilon, the Provincial Poultryman, has some interesting comments on the present state of poultry raising in Quebec. In a recent radio talk, he pointed out that, due to the relatively prosperous state of the poultry industry, many farmers have increased their flocks considerably during the past year. Between September 1950 and September 1951, co-operative and private hatcheries sold about 10¼ million chicks, and almost 700,000 turkey chicks, which is an increase of 30% and from 20% to 25% respectively.

He did not think that there would be any overproduction of eggs or any great fall in prices, however, for our population of consumers is continually increasing and consumption of eggs and poultry meat is also growing. And although there has been an increase of 30% in the number of chicks hatched, many of these are going into broilers and are not being kept to laying age.

The trend toward broilers is such that it may well completely change our poultry operations, or at least influence them greatly, he said. A considerable number of hatcheries are operating twelve months in the year, which results in a constant market for hatching eggs. This means, in turn, that poultry farmers should see that their operations are as efficient as they can make them, so that their birds will grow quickly, keep healthy, feather fast, and use their feed to the best possible advantage.

He was emphatic on the necessity of good health measures among our flocks. With Newcastle Disease just around the corner, every precaution must be taken to keep this out of our flocks, and the best way to do it is to refuse to buy stock from any source that has not been given a clean bill of health by the proper authorities. There are many ways in which a flock can become infected, but probably the easiest way in which the disease can become established is by bringing it in through birds bought from outside sources. Through the good work of our poultry inspectors, hatchery operators and suppliers of hatching eggs, we can get, from certified or approved hatcheries right here in Quebec, as good or better chicks than we can find anywhere else. Supplies produced far away are not necessarily better than the local product, no matter how extensively they are advertised, and chicks ordered from itinerant salesmen, unknown to our farmers, are still less to be recommended.

Our local hatcheries can fill all orders, provided that orders are placed sufficiently far in advance, and it is always best to buy chicks from the nearest approved source.

Pour warm water in a cold separator just before the milk is put in. It helps to get all the butterfat that's put into the separator to come out the cream spout.

Two Firsts, Two Seconds For Quebec Juniors At Toronto



Canadian junior dairy judging champions — Robert Miller and Garth Hadlock.

Quebec's junior judges took two championships at Toronto last month. The dairy cattle judging team of Garth Hadlock and Robert Miller, of the Brome Club, placed first in their section, and the two girls from St. Valère d'Arthabaska, Pauline Landry and Armande Hébert, placed first in potato judging. Gaston Marcoux and L. D. McClintock, who coached the dairy team, can well feel proud of their charges, as can Vincent Lanouette and Hector Béliveau, who put the potato champions through their early instruction.

Quebec teams competed in seven events—the maximum allowed—and did well in most of them. The swine judging team from St. Edouard of Louis St. Hilaire and Roger Soucy placed second. In second place also was our food team, Thérèse Chabot and Jeannine Gosselin of the St. Laurent club. Egide Beaudoin and Jean Gagnon of St. Henedine came third in the poultry judging competition.

Provincial winners in the different contests were as follows:

	First	Second
Swine	Manitoba	Quebec
Dairy Cattle	Quebec	Ontario
Beef Cattle	Alberta	Saskatchewan
Poultry	Saskatchewan	Manitoba
Potatoes	Quebec	British Columbia
Grain	Ontario	Saskatchewan
Gardening	Manitoba	Alberta
Food	Manitoba	Quebec
Clothing	Alberta	Manitoba

Ayrshire Meeting in January

The Quebec Ayrshire Society will hold its annual meeting on January 17th, in the Queen's Hotel in Montreal, starting at ten o'clock. This will be one of the first of the agricultural meetings for the new year, and a large attendance of breeders is expected.

The chief speaker will be Dr. Ernest Mercier, assistant superintendent of the Experimental Farm at Lennoxville, who will discuss breeding policies especially as they are related to the rearing of purebred cattle.

Strippings

by Gordon W. Geddes

At last we go around to the job of putting numbers up for the cows in the stable. It has been under consideration ever since we went on R. O. P. but as long as it wasn't on the MUST list, it took a long time to get to the point. We found some this summer in the hardware store but could only get part enough. Later on we found more but the price had jumped from six cents each single numeral to ten. This looked like a bad case of inflation which we are supposed to resist with all our might. Maybe my Scotch blood made my resistance a little stronger. Anyway I didn't finish buying them. Came a stormy day and Hans and I put up what we had. They seemed so handy that we wished we had them all but I still wouldn't yield to temptation and inflation. Glancing at the license plate on the truck one day, there was number 24, the highest of our requirements, just waiting to be used as soon as we got a new license. Of course that was only part of the license number which was why we hadn't noticed it before. Then we looked at a pile of old plates saved for we knew not what and there were most of the ones we needed paired in proper order. The few missing were made by cutting out singles and using two together. They were strong enough to mount as they were while the boughten ones must be put on wooden block so the labour of cutting them out was balanced up. Of course they are several different colours but variety is the spice of life or they could be painted some day.

We didn't have the turnips pulled when the first taste of wintry weather hit us so we hustled them in as fast as we could. The crop was smaller than last year so they didn't last as long but they did last long enough to show why we still grow them. We had two bull calves about the same age in neighbouring pens. One would

not eat the turnips and by the time they were gone there was quite a difference in the appearance of the two with the turnip-eater as husky as little Abner. The cows do not notice being shut in the stable much while the turnips last but when they first go onto silage instead, we notice a drop in milk every year. This year it was more pronounced as the hay is not too good. After we get a little deeper into the silo they usually come back up again and we hope this year is no exception. We stocked up pretty well with small pigs while the milk flow was high and the way feed is going up we need something else to help feed them.

When the weather warmed up again we tackled still another job which has been hanging fire. That was to sow the small plot of fall rye for next year's seed. It seemed late to Hans to think of such a thing but it was successful last year. It may have been a few days later this year but that shouldn't make much difference as it made no apparent start last fall. Anyway the weather was good enough so we were even able to put the packer over it after seeding. After we tried the late seeding last year we were told that it should either be sown early enough to make a fair start in the fall or late enough so it does not start at all. The latter is no good for pasture but it is all right for grain production and the grain isn't ripe in time to interfere with haying.

The howl going up against the proposal to eliminate retail price fixing by the manufacturer would indicate that the practice is a decided advantage to the maker. What is too big an advantage to him is not so good for the consumer. It would also look as if the percentage of prices so fixed is much larger than they wish to admit. If the portion involved were so negligible, it would scarcely justify such a furore. Farmers cannot even set the wholesale price for their produce. Supposing they ever got in a position to do so, what kind of a commotion would it arouse if they

attempted to dictate the retail price as well?

Last year our cooperative creamery found that it needed an increased production of 16% to make itself self-supporting. We have depended on buying butter and making a profit on it in the winter to keep us going. However it would be much safer to produce that cream ourselves and it would also be quite a simple thing to do. However at the end of the season we find that we have a drop of about the 16% in our total production. In spite of that our reprinting of other butter enabled us to come through with a slight surplus.

To-day it is snowy enough to remind me that it is time to wish all readers a Merry Christmas and a Happy New Year. It has to be done so early in the year in order to come out at the right time that I always forget it. To be quite truthful, Dot had more to do with reminding me this time than the snow did. The Christmas spirit doesn't strike very hard with the plowing not quite finished. Oh sure, we know it should be but that doesn't turn any furrows unless it is in your forehead and it really isn't any use to let it go that far.

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Prevention Means Profits

Timely Hints for Preventing Animal Diseases

It has been suggested that our veterinary column might serve a more useful purpose if it dealt mainly with the routine care of livestock necessary at various times of the year. While it will point out new developments in veterinary science from time to time, its chief function will be to act as a reminder, and thus attempt to guide livestock owners in the prevention of very common causes of loss; hence the change in title.

In the poultry industry, in particular, the losses from disease are enormous, in spite of the fact that most of the conditions can be readily prevented or controlled if the owner is prepared. In this connection it is of interest, at the end of 1951, to consider what we have seen as causes of serious loss to Quebec poultry owners this year.

Coccidiosis was the greatest cause of loss in chickens for five months, starting in March. In practically every case the owner had maintained excessive cleanliness and dryness in the brooders, and then a sudden change to dampness had caused outbreaks. It would have been far better to brood the chicks on deep litter, not quite so dry at first, so that they would acquire some resistance before they were heavily exposed. There are very efficient drugs available in cases of accident—sulfamethazine is a good example. Early exposure results in a natural balance which protects against later serious outbreaks of any form of coccidiosis. Medicated feeds reduce losses in broiler plants, but do not hold up when conditions favouring a real outbreak are present.

According to our record books the greatest cause of loss in turkeys was due to a disease known as Non-specific Enteritis. This was first seen in May, and it reached its worst point by October. The birds get diarrhea, their heads go dark, and death occurs while they are still fat. It appears to be caused by bacteria that are usually harmless inhabitants of the intestines, and outbreaks often follow storms,

rough handling, severe frights, etc. Dead birds are sometimes found with their small intestines badly damaged, and almost full of blood. Most cases respond to the use of sulfa drugs, good hygiene and comfort.

Blackhead and navel infection were the next two important turkey diseases. In every case of blackhead seen, the poults had picked up the eggs of caecal worms of chickens.

Starting in July and continuing into November we saw an unusually large number of cases of Bluecomb, or Pullet Disease, in pullets. In most cases the birds had been brought off range and suddenly confined on high protein laying mash. Death usually occurs very suddenly after a brief period of lethargy. It is an acute uraemia, and can be checked by reducing the mash and giving molasses on alternate days. However, a less hurried programme of bringing them into laying condition would prevent the disease in most cases.

Very little pullorum disease was seen this year—a very good sign of cooperation with the blood-testing programme. On the other hand more cases of obvious nutritional deficiency were seen in both chicks and poults. Leukosis, in the visceral form (or "Big Liver Disease") occurred as usual as an autumn disease of pullets;

this disease still defies research men who try to understand it, although some success has been attained by breeding leukosis-resistant strains of birds.

Buyers of day-old turkey poults could prevent at least some losses from navel infection in 1952 if they examined the navels of each new poult, and applied a little sulphamethazine to any navel that was not completely dry. The insoluble form of the drug can be supplied by veterinarians. This disease is supposed to be brought on by insanitary incubation, but it also occurs in poults from very clean hatcheries; in some cases it is possible that a longer drying-out period would help, as an incompletely closed navel could acquire infection after the poult is in the buyer's possession.

Large Farm Animals

Veterinarians are becoming interested in the possibilities that cortisone offers in veterinary practice. Scientific papers on its use in eye diseases, on its effect in normal sheep and on acetonaemia of cattle have appeared recently. It will also certainly be a valuable veterinary weapon in certain kinds of non-infectious diseases—although its general adoption will have to await more supplies and lower prices.

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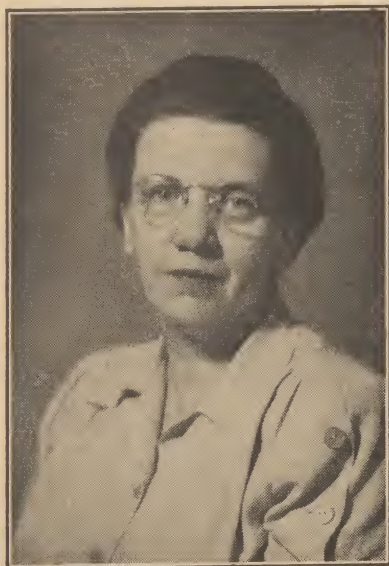
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THE WOMEN'S INSTITUTES SECTION

*Devoted to the activities of the Quebec Institutes
and to matters of interest to them*

A NEW YEAR'S MESSAGE



from our
PRESIDENT

*"Ring out the thousand wars of old,
Ring in the thousand years of peace".*

¶ With our heritage of eternal hope, we look forward to a New Year bright with promise; a New Year in which we shall strive for progress, for slow, steady development for Home and Country, with good the final goal for all.

¶ May the New Year bring you peace, happiness and strength for each appointed task.

Mrs. G. E. LeBaron,
North Hatley,
President, Quebec Women's Institutes.

Tweedsmuir Competitions

by Ida R. Bruneau

At the last biennial conference of the Federated Women's Institutes of Canada, there were some changes made in the regulations of the Tweedsmuir Competitions which will be of interest to you.

The essay topic will be "The Rural Home". This is the same subject as has been chosen for the contest sponsored by the Associated Country Women of the World, and the winners of the Canadian competition will be entered in the international at the time of the A.C.W.W. conference in 1953. For this reason, the winning provincial essays must be submitted to the F.W.I.C. by October 1st, 1952. You would, therefore, have to complete your essay well before that time, as the provincial elimination contest will have to be held first.

There is no change in the rules for the village histories, and all instructions for these may be obtained by writing the Q.W.I. office at Macdonald College.

The handicraft section this term has been changed from a hooked rug to an appliqued quilt. As before, the design must be original; the appliqué may be button-holed or hemmed to the quilt and embroidery may be used to show up the design. The quilting, of course, must be done by hand. The quilt should be made of cotton, be of light weight, and the size should be 80"-90" wide by 108" long. It should be newly made and a project of the entire group, with as many members as possible working on it.

The dates by which entries for each of these competitions must be forwarded to the College will be announced later by the provincial executive. It is not too soon to get started, however, especially on such large projects as the histories or the quilts. We hope that many of you will be interested in competing and, if you need any further information from the office, we will be very pleased to give you all the help we can.



The Ascot Women's Institute. The group includes Sylvia Burt (centre) guest speaker and one of the "Weston" girls, her mother, Mrs. H. O. Burt (right) and the president, Mrs. A. Parsons (left).

Our Stake In The Peace Garden

The International Peace Garden—What is it? Where is it? Literature answering these questions, and many others, has been obtained by the Q.W.I. office and many branches have been using it so we should be getting a better idea of what is meant when we hear the words, "Peace Garden". There is one aspect of this project, however, that is not covered in any material that has been received and that is—what is the story of our own particular interest, as W.I. members, in this Garden? To get this, a request was sent to Mrs. Robert Palmer, Waskada, Man., representative from the Federated Women's Institutes of Canada to International Peace Garden Inc. In her reply she gives a concise account of the part played by us, through our national organization, in supporting this plan. Her letter, in conjunction with the leaflets you may obtain from this office, should give every member a clearer understanding of our stake in this project and what happens to that annual assessment of only one cent a member that has been paid for many years.

Here is what Mrs. Palmer says: "When the idea of an International Peace Garden was first discussed, it was decided to ask for individual donations and to canvass organizations interested in the furtherance of peaceful relations between nations.

The president of the F.W.I.C. at that time, Mrs. Walker of Ontario, was a personal friend of Mr. Moore, who instigated the International Peace Garden, and when he told her of what they hoped to do she brought the matter before the F.W.I.C. with the result that they asked to be included as sponsors of the idea. They also undertook to furnish funds for the upkeep of a plot in the Garden.

Mr. Moore, himself, picked a plot of ground to the north of the cairn, 190 feet by 90 feet in size, for the F.W.I.C. plot. The original idea was to divide this into nine plots, each to represent a province and to be planted with plants donated by those provinces. Some work was begun in various parts of the garden, (the whole area is 2,200 acres in extent) and the cairn was built and dedicated in July, 1932. Some roads were built and dams thrown across ravines to form artificial lakes, but as there was no money available to hire a manager the work was sketchy and due to lack of planning it was necessary to change the roadways, etc., before much progress could be made.

The years from 1933 to 1936 were hard years in Manitoba and there was no money available for much development. The United States Government installed a C.C.C. camp in their side of the garden and set indigents to clear up the woods and a start was made toward building the beautiful retaining wall of native field stone, reinforced by steel bars. It is nine feet thick and extends almost 400 feet. It was raised to height of about six feet in the centre before war broke out in 1939 when all work in the garden came to a standstill.

It had been found that the idea of dividing the F.W.I.C. plot into nine parts and obtaining plants from each provinces, was impractical, as the plants did not stand up to the rigours of a Manitoba winter, so when the plans were made again our plot had to be ploughed and re-grassed. Mrs. Walker, past president F.W.I.C., visited the Garden in 1937 and when she returned to Ontario she had Mr. Moore select and ship a sundial to be installed in the F.W.I.C. plot at her expense. It is felt now that a bronze marker of some kind could be installed on our plot, or upon the sundial and would add to the appearance.

Since then much work has been done at the Garden. Our plot being near the gate has been landscaped and planted to colourful shrubs, evergreens, and annual flowers, and a few perennials, which made it a blaze of colour from early June until frosts in the fall. The annual cost of labour and seeds and bulbs amounts to about \$150, and it was decided at the biennial meeting in Saskatoon in 1949, that each province would donate \$20 a year toward the upkeep of the plot. That is to date the extent of our responsibility to the International Peace Garden.



This Cairn of native stone is situated in the International Peace Garden, on the International Boundary, between Canada and the United States—the state of North Dakota and the province of Manitoba—the approximate centre of North America. It bears the following inscription: *"To God in His Glory; we two nations dedicate this Garden and pledge ourselves that as long as men shall live, we will not take up arms against one another."*

The Month With The W.I.

This report will appear in the Christmas issue of the Journal. It is indeed heart warming to note in the news that has come to me that wonderful Christmas spirit of giving and sharing. Nearly every W.I. branch has sent one, and many two-four parcels overseas, to bring cheer and the glow of friendship to those brave people who are still experiencing strict austerity.

Argenteuil: Arundel had an exchange of plants, slips and bulbs and heard an account of a trip to the West. Brownsburg had a demonstration by the Necchi Sewing Machine Co. Cookies were sent to Ste. Annes Military Hospital. Frontier heard a talk entitled "Guidance in Education", by Mr. F. H. J. Royal, Principal of the Lachute High School. Morin Heights saw two films, Learning to Understand Children and The Story of Mr. Bell the Inventor. A luncheon at the opening of the new school was sponsored. Pioneer saw slides on United Nations. A purse was presented a member going on a trip to the West. Jerusalem-Bethany had some contests and donated \$5 to the Salvation Army. Lachute visited the Historical Museum at Carillon. Prizes were given to the school. Lakefield held a party and Upper Lachute and East End heard a talk on "Agriculture", by Mr. Russell, Agriculture teacher at Lachute High School. The branch catered for a wedding.

Bonaventure: The semi-annual meeting was held at Grand Cascapedia. Winners of the two scholarships given by the county were announced, George Boudreau of Matapedia and Carl Mann of Mann's Settlement. Other prize winners were Willie Campbell, Black Capes, Eileen Imhoff, New Carlisle and Francis Mann, Mann's Settlement. All branches enjoyed the Sewing Course given by Miss Campbell. The talk for the W.I. broadcast for that month was prepared by Mrs. H. Campbell. Restigouche presented Mrs. Robert Nicol with a life membership in recognition of her service and interest in the W.I.

Chat-Huntingdon: Dundee had the provincial prize winning rug of Mrs. A. W. Perkins on display and a talk on the origin of the materials used was given. The convenor of Home Economics showed a collection of hand crocheted doilies. At Franklin Centre articles on

the following subjects were read: Travelling Bookmobile, Quebec Laws of Margarine Attacked, What I have Learned by being a Member of the W.I., and Mrs. R. J. Blair gave a short talk on Thanksgiving. Howick gave a donation of canned fruits and vegetables to Howick High School and entertained the teaching staff. Mrs. J. Ross gave a talk on "A Trip To England and Scotland." Huntingdon brought in a wonderful array of baskets filled with fruits, vegetables, jams, jellies and pickles which later were given to the Huntingdon County Hospital. Mrs. L. Merson won the prize for the most attractive basket. Mrs. Perkins displayed several hooked mats, and recipe booklets on cheese and apple dishes were given out. Ormstown entertained the High School staff. Mrs. Davidson gave an address on "India and their Way of Life", Mrs. Russell played several violin selections and Mrs. J. Wallace sang a solo. Hemmingford sponsored the school fair, a very successful event.

Compton: At Bury the guest speaker was Mr. Roberts, Supervisor of Schools, who spoke on Parent-Teacher Associations in the United States. The members of the school board and teaching staff were guests at this meeting. Brookbury voted \$11 for prizes at Bury school and \$5 to the school fair. Cookshire catered to the Masonic dinner and realized \$63. A talk, "Canada, the Land of Plenty", was given by Mrs. John French. Sewing classes have been held. Canterbury donated \$10 to Bury school for prizes and \$10 to the school fair. A sunshine basket was sent Mrs. Coates. East Angus presented a gift to a bride and subscribed for the Sherbrooke Record as a gift to a patient in the hospital. Scotstown members enjoyed a bus trip to Quebec. The weaving course given by Miss Bruneau was well attended. \$35 was donated to the Cemetery and \$5 to the school fair.

Gaspe: L'Anse-aux-Cousins heard a paper, "Our Institute looks out for Babies". A scrambled word contest was enjoyed. Sandy Beach entertained their county president. A food sale netted \$11.65 and a travelling apron \$13. Wakeham is donating swings and see-saws to the school. The Citizenship convenor read a paper on UNRA and material was ordered to make a UN flag. York had a display of cherished china. Fair prize money was given out and a contest held.

Gatineau: Aylmer East held a food sale, making satisfactory sum. Clothing was donated to the Unitarian Service Committee. Eardley held their Citizenship meeting with items on Canada, down through the centuries, and a quiz "Know Your Canada", with prizes. A donation of \$25 was given to the Gatineau Memorial Hospital. Kazabazua sponsored a fine school fair, in which the Aylwin Farmer's Club co-operated, making a donation of \$100 to the W.I. for this purpose. Rupert is pur-



Part of the group at Upper Lachute and East End.

chasing bulbs for fall planting at the Rupert Union Cemetery. Wakefield members paid an individual membership fee of \$1 to Canadian Cancer Society. Completed garments for the Wakefield Hospital were on display and offers of help from Aylmer East and Earledey were received. A "General Knowledge" quiz was put on by the convenor of Education, with prizes. Wright held an exhibit of handicraft, old and new; many articles 50 and 100 years old were in the collection. A refreshment booth was operated at Gracefield Agriculture Fair, clearing \$23.85. The Royal Visit was marked by purchasing a souvenir for each child attending school. Papers on Thanksgiving in 1872 and Canadian Industries were given, followed by a quiz.

Jacques Cartier: Ste. Annes held a cooking class with Miss Campbell instructing. The programme was in charge of the convenor of Welfare and Health, Mrs. C. Jones, with Mrs. McKinnel giving a talk on Home Nursing. Mrs. Robertson was appointed convenor of Citizenship for the balance of the year and a food table, in charge of the treasurer, Mrs. G. Brewster, netted \$8. The sum of \$5 was voted the Poppy Fund.

Missisquoi: Cowansville reports a school fair. The convenor of Citizenship summarized an address by Hon. L. B. Pearson, "The United Nations in a Two Power World". Dunham is sending canned goods to the Sweetsburg Hospital. Fordyce heard a talk on "Education" by Mrs. McCutcheon of the Cowansville High School. A sale of doilies made and donated by a member netted \$6.10.

Montcalm: Rawdon held a sale of home made cooking and tea at the home of Miss Lucy Daly at which the sum of \$219 was realized. \$75 of this was put into the Education Fund. A Dresden Plate quilt made by United Church Ladies' Aid was presented to the W.I. by Mrs. G. Smiley for the same fund. \$10 was given to the Junior W.I. branch which is being organized.

Papineau: Lochaber observed the 20th anniversary of their branch on Oct. 31. (Congratulations. May you have many more years of prosperity and achievement.) To celebrate that occasion the county meeting was held on that date. \$25 was forwarded for the maintenance of their French adoptee. The convenor of Publicity, Mrs. A. Devenny, gave a report of the luncheon and a tea was held in the Assembly Hall, Lansdown Park, when Dr. Charlotte Whitton was the speaker, addressing Women's Institute members from Ontario and Quebec. The branch made a donation to the blind and ordered three subscriptions to the Federated News.

Pontiac: Beech Grove members served meals to men rebuilding a barn recently burned and a quilt, made by the branch from top donated by Mrs. H. Bronson, was given to a member whose home was burned. Bristol made plans for a party for the children's cookie contest. Books were presented, also a treat of ice cream. A Red Cross



Shipton W.I. picnic at Nicolet Lake.

meeting, conducted by children of No. 1 School, was attended. Quyon heard a paper on "Old Time History of Quyon and Locality", prepared and read by Mrs. H. Burke, convenor of Education. (Might not this be the beginning for a Tweedsmuir History?) Application has been made for a St. John Ambulance Course in First Aid. Through the Red Cross this branch has arranged to have capsules (CLO) available for school children. Rug making was chosen for the next course, and a supplementary course in needlepoint along with a course in leather work. Help is to be given to the organization of a Scout Troop and gifts were sent to those who suffered loss through fire. Shawville had a "progressive" dinner, preceding their meeting. Miss Frances of the High School staff, guest speaker, gave a talk on "Education", in which history was emphasized. Wyman had a paper on "Citizenship", and an article on "Everyday Citizenship", was also read. Highlights of the Eastern Ontario W.I. convention, held at Chateau Laurier, Ottawa, were given.

Richmond: A special county meeting was held in Richmond Memorial Hall when Mr. Bebie, Chairman for the county Red Cross, asked the members of the different committees to help collect funds for the drive. Denison's Mills heard a paper on "Progress in Radio". A mending contest was held with Mrs. A. Herbert winning the prize. Material for an apron was given each member, the finished aprons to be sold at an "auction". Melbourne Ridge held a variety supper for the members and their families. Health films, furnished by the I.O.D.E., are to be shown by representatives of the Health Centre. Richmond Young W.I. had a dance and special sale of a quilt made by a member. Spooner Pond has completed the history of the branch and forwarded it to the Q.W.I. office. (The first one to come in) A card shower for a member who was ill, a coin shower for a new baby and a card party held, are other items mentioned. At Shipton a quilt was tacked, another card shower for a sick member reported, and a shower for a bride-to-be. Windsor Mills is sponsoring the Girl Guides. Half of their registration fee to the St. John's Ambulance course was paid, \$5, and \$10 given them for their county council fee.

A circulating library is now in operation for members of the W.I.

Rouville: Abbotsford heard an informative address entitled, "Personal Glimpses from the Tenth Province", by Rev. A. George Moore, Granby.

Shefford: Granby Hill voted \$10 to the blind and sent a box of fruit to a friend. A contest on the size of a pumpkin was featured. South Roxton held its annual supper for members and their families. A donation of \$3 was given the Cancer Fund. Warden's programme was in charge of the Citizenship convenor who gave a paper on "Facts Governing Canadian History", and had a contest on "Famous Canadians".

Sherbrooke: Mrs. G. Richard, president Sherbrooke Co. W.I., and 45 members, were entertained by the Orleans County Demonstration Groups at their annual meeting held in Newport, Vt. Ascot donated \$110 to the Building Fund of the new Lennoxville High School, the entire profits from catering to the Rotary Club. Other sums donated were \$25 to the Q.W.I. Service Fund and \$5 to the Red Feather Campaign. The branch also catered to the Ploughman's banquet. Mrs. I. J. Parnell, a charter member who has been in W.I. work for 37 years, was presented with a life membership. Belvidere voted \$23 to the Q.W.I. Service Fund and food and rummage sales were held. Flowers, cards and a subscription to the Sherbrooke Record were sent to shut-ins. Brompton Road sent Life magazine to a veteran (subscription) and donated \$20 to school lunches. A food sale was held and articles for the Christmas sale handed in. Cherry River held a profitable sale. Milby held a dance to raise money for the Sherbrooke Hospital and forwarded \$100 from the proceeds. The meeting was held in the Club House and took the form of a shower for their room. Among the articles given were two beautiful chairs, the gift of Mr. Robt. Wallace, Stanstead, in memory of his wife, a former member of Milby branch. \$5 was voted to the Community Chest. Orford held a round table discussion on UN and international topics. A food sale was held.

Stanstead: Beebe has been successful in inaugurating a Home and School Association, with two members of the W.I. as officers. At this meeting the members of the school staff were present as guests. Bulbs to be sold among the members were obtained by the Agriculture convenor. Minton entertained the Q.W.I. president, Mrs. G. E. LeBaron, North Hatley, who gave a talk on "Civil Defence". The serving of school lunches during the winter months was discussed. North Hatley joined in a reception and party for the teaching staff of school. The programme, arranged by the convenor of Education, Mrs. Robt. Vaughan, took the form of a discussion on the pros and cons of home work with the conclusion reached that some home work was desirable to promote mental discipline and concentration, but too much was

not good. Way's Mills entertained the county meeting. A new Canadian from Holland, with her two children, were welcomed and prizes given at Ayer's Cliff and Coaticook schools.

Vaudreuil: Cavagnal donated \$65 for prizes for the school fair. A scholarship of \$25 was given in the local school and \$25 voted to the V.O.N.



School closing at Wyman, when the W.I. presented prizes and helped with treats.

Helping Hands

by Helen Kirby

All down the ages hands have been spoken of, written about and just plain "used"; as types for personality studies like Palmistry, that the Romany folk did so well and used as a means of livelihood; as models for artists, sculptors and wood carvers; the surgeon's hands, the musician's, long and slender; the artisan's or craftsman's, squarer shape; or the tapering fingers of the "blue-bloods" we read about in our stories; each has been the theme of learned treatise or verse.

But what of your hand and mine? They will vary in shape, lines and colour, but I'll wager all are somewhat work worn and often tired. For we, of the Women's Institutes, are well known for our "Helping Hands" and should be justly proud of that. For who helps more than a busy mother and homemaker to keep the home fires burning? At home her hands are very important. The community, too, knows it can depend on her to keep the churches, schools and other things running smoothly. The church sales, for which we sew so cleverly, and those suppers that are so bountifully supplied with proofs of our culinary work; the less fortunate, for whom we re-make garments or knit, and so on; all just "hand-work" but very important.

Quite aside from the manual side of it all, it is the big opportunity to serve with our skills. The sick neighbour we nurse, read to or cook for, the children we care for as a vital and precious part of our country, the sharing in the community that is largely of a work nature, all this is part of our "hand-work".

The whole field of Home Economics is mostly our province and if we can take a large view of it we shall see that all the world is part of our work and contributing to our interests, to help us learn and be even more skilful at our chosen tasks.

All just "hand-work", but so very vital, so take good care of these friends and tools that they may serve you the better.

Getting Christmas Dinner

What shall I serve for dinner?
 On Christmas Day to the folks?
 The usual Christmas dinner
 Of turkey, mince-pie and jokes?
 I've cooked it ever so often
 It usually turns out well,
 But t'ween you and me, I find it
 Just a little mite dull.
 To stir up all of that pudding,
 Stuff turkey and peel those spuds,
 Make jelly or count out china,
 Or fix holly and mistletoe buds.
 I know what I'll do for diversion
 While my hands are busy and quick,
 I'll trace the source of each food-stuff
 And learn a lot by that trick.
 First the red, red juice of tomato
 That comes from the store room shelf.
 Then it's bread for the stuffing of turkey,
 That I raised and baked myself.
 The spices that go into the pudding
 Come from far away lands like Ceylon,
 The coffee and sugar and pepper
 Are found in the islands beyond.
 The flour in cakes from the far west,
 The eggs from my "biddies" at home.
 The shortening comes out of a bottle
 Of olives, that grow near to Rome.
 For raisins and walnuts and almonds
 I'll think of Samarkand and Spain.
 The silver, china and linen
 Were brought out of England-Touraine.
 How much have I learned from the whimsy?
 That no matter how irksome the task
 It will give you both fun and instruction
 If you give it a chance to ask—
 Where it comes from, is made of and so on,
 And learn as you measure or stir
 How important your work as a Home Ec.
 Is to family, industry, the world.

The Best Way to Peel Tomatoes

Core tomatoes before peeling, and you'll find the canning job will be easier and speedier.

Many homemakers peel the scalded tomato and then cut out the core. This means holding the slippery peeled tomato while removing the core. And it usually results in loss of juice.

Here's the most efficient way to peel a tomato. Have the container for the peeled fruit at your left, and the scaled tomatoes in front of the peeling pan, preferably elevated a little. Then hold the tomato in the left hand, and remove the core first. Of course if you are left handed you will reverse this.

A twist of both wrists is the trick for quickly removing the core. The left hand, holding the tomato with the stem end toward you, twists to the left, and the right hand holding the knife twists at the same time to the right.

After the core comes out, the peeling is easy. Grasp the skin at the core opening with the edge of the knife and the ball of your thumb. Pull toward the blossom end, with the side of the knife slipping under the skin at the start of each stroke. The fingers of the left hand move to rotate the tomato.

Paint Lengthens Life of Buildings

The life of a farm building can be increased by 10 to 16 years simply by applying paint when it is needed.

Further, you can figure on better than 3 percent interest on money invested for painting.

Spring and fall usually are considered good seasons for outside painting. However, painting may be done when the weather is not damp, frosty or freezing. Temperatures should be between 60° and 80°. The surface to be painted should be thoroughly dry.

Start now to determine the amount of paint needed for unpainted buildings and metal roofs which are beginning to show rust spots. Inspect buildings which are already painted. It may be time for another coat.

Before painting metal roofs which are beginning to rust, remove the rust with a wire brush, and paint the spots with a rust-inhibitive paint such as red lead or metallic zinc paint. You will have to spend more time preparing the surfaces for painting if you delay the job.

Apply at least one primer coat of paint on all exposed woodwork of new buildings as soon after construction as weather permits.

New galvanized sheet iron is easier to paint if allowed to weather for about a year; however, the galvanized surface can be prepared for immediate painting by scrubbing it with a strong water solution of bluestone or sal ammoniac.



THE COLLEGE PAGE

Prime Minister Visits Macdonald

The Honourable Louis Saint-Laurent was the choice of the Macdonald War Memorial Committee, under the chairmanship of Dr. Frank Hanson, as this year's speaker at the annual War Memorial Address held at the College on November 9th.

These yearly addresses constitute our memorial to the students and staff members of Macdonald College who served their country in two world wars; money which might have been expended to buy a statue, or erect a building, was, instead, placed in a fund to make it possible for some eminent person to be invited to speak to our students on a subject of his choice, the only stipulation being that the talk be of a nature that will help to "promote an intelligent understanding of world affairs by young Canadians, and to inspire them to do their part toward the maintenance of freedom, tolerance, and the improvement of human relations."

Mr. Saint-Laurent entitled his talk "The Kind Of Nation Canada Is." Himself a product of the fusion of two races, he spoke sincerely of his faith in Canada, his hope for Canadians, and his love of his country. In quiet, simple language, he described Canada as a tolerant nation and a mediator in world councils. This tolerance, he believes, stems from the successful adjustment that different racial groups in Canada have been able to achieve in their relationships with one another, while still retaining their own traditions. Canadian statesmen bring this spirit of tolerance to their diplomatic tasks, and as a result, other nations are looking to Canada to promote harmony in world affairs.

There have been certain constitutional changes in Canada since Confederation, and other changes may become advisable as we develop nationally, he said. But these changes must not be forced; the consent to them should be free consent. In the course of any such evolution, he was convinced that "we should not depart from



certain fundamental principles, and of these the greatest, I believe, is respect for the rights and individuality of other Canadians—a stubborn refusal, if you like, to coerce our fellow citizens, and a steady, growing mutual confidence in the goodwill and good faith of other Canadians."

Our Travelling Scientists

Some members of our staff are engaged in work which keeps them pretty well tied to their desks or laboratory benches. Others get a chance to move about a bit. One person who really got around last summer was Dr. Laurent Choquette of the Institute of Parasitology, who spent four months in North Africa.

Dr. Choquette is a parasitologist who is especially interested in the parasites which are found in wild animals, fish, and birds. He is curious to find out, in the interests of science, how widely distributed certain parasites are; what their life history is; whether or not there is any practical way to combat those which are causing actual damage. Every animal, human or otherwise, harbours parasites, of course. Some are harmless, others are not. But in trying to combat parasites in wild animals, one is at a great disadvantage as compared with the man who is working with parasites of domestic animals. It is no great trick to treat a flock of sheep for nodular worms, now that the parasitologists have found out how to go about it; but how is one going to attempt to wipe out an infestation of parasites in wild deer, for example? Or how is one going to clean up a rash of black spot in speckled trout in Northern Quebec? At the present time there doesn't seem to be any practical way of doing these things, but who can tell what discoveries time may bring? In the meantime, it is necessary to find out everything possible about the parasites in wild animals, and that is just what he is trying to do.

His trip to Africa, which began last May, took him to the Pasteur Institute at Algiers, which is the headquarters for human and animal health work for Algeria. He went on a French Government scholarship, and spent a good part of his time getting a fresh point of view on parasitic and contagious diseases of cattle and other livestock—foot and mouth disease, hog cholera, rabies, etc.



The Pasteur Institute is world famous for the production of vaccines and serums for the treatment of disease in animals and human beings, and Dr. Choquette picked up much valuable information along these lines as well.

During his stay in North Africa he was able to visit similar laboratories at Casablanca and at Tangiers, and made short stops on the way home at the University of London, Edinburg University and l'Ecole Nationale Vétérinaire d'Alfort in Paris.

People say nowadays that it's a small world. Dr. Choquette found evidence of this on his trip. A certain parasite which he found in dogs in Africa turned out to be related to one discovered in foxes trapped in the Canadian Arctic. That is the sort of thing which makes the life of the parasitologist interesting, and Dr. Choquette is hoping to be able to return to Africa in the not too distant future to see what other things he can find to add to our store of knowledge.

This Cost of Living

"When the average factory worker eats his breakfast before his eight-hour shift it will take him only nine minutes and 45 seconds of labour to pay for it—two slices of toast, two slices of bacon, a whole potato, two eggs and a glass of milk. His father in 1914 had to spend 32 minutes and 48 seconds at the factory to secure the same hearty meal."

Thus speaks the official organ of the American Farm Bureau Federation, in a recent issue. The editor goes on to say; "And in 1949 the factory worker laboured longer for bacon, milk, eggs and potatoes than in February of 1951."

As has been pointed out a number of times by the Canadian Federation of Agriculture this statement applies equally in Canada as in the U.S. The average worker in industry today, with his very high rate of wages, can buy more for his money with less labour than was the case a decade ago.

National Weed Committee Meets

Before new methods of killing weeds are made public, a vast amount of work is carried on behind the scenes. Scientists test and re-test, and then test again to make sure that all the kinks are out. Will the rate of application be such that a new herbicide can be used economically on the average farm? What is the effect on the farmer's crops? Is it selective? These questions and dozens more like them have to be answered before the final government OK is given to go ahead and publicize the information.

Questions such as these were discussed by the experts at the fifth meeting of the Eastern Section of the National Weed Committee held at Macdonald College on November 7, 8 and 9. The National Weed Committee is a division of the National Advisory Committee on weeds. This committee reviews problems, makes recommendations as to what type of research is needed, and what herbicides and insecticides should be licensed for sale.

Delegates from all the provincial governments concerned, the federal government, and representatives of private industry in Canada and the United States were welcomed at the opening meeting by Dr. W. H. Brittain, Dean of the Faculty of Agriculture of McGill University.

The three-day meeting brought together men engaged in the experimental phases of weed control; it gave them an opportunity to discuss ideas and exchange information. It was, in effect, a clearing house of ideas. Discussion was not limited to the new herbicides and insecticides, however; tillage and cropping practices for weed control and methods of dealing with weeds through the introduction of plant-eating insects were also discussed.

The Quebec delegation was headed by Dr. George Maheux, Director of Information and Research, who was the guest speaker at the banquet that concluded the meetings.



Glen Eric Flaten of Weybury, Sask., is the winner of the T. Eaton Company Scholarship, which will send him to the University of Saskatchewan for a degree course in agriculture. In our photo, the award is being presented by Mrs. John David Eaton, at the Royal Winter Fair.



Season's Greetings

M A C D O N A L D T O B A C C O C O M P A N Y